

Introduction to Time-Varying Electrical Networks

Assignment for Week 2

Problem 1

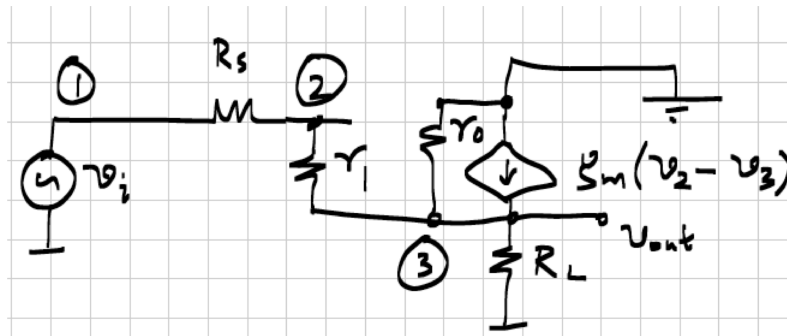


Figure 1: Network for problem 1.

Write the MNA equations (in matrix form) for the network of Fig. 1. The nodes are numbered. Use G_s to denote $1/R_s$ etc. to make your matrices look less messy.

Problem 2

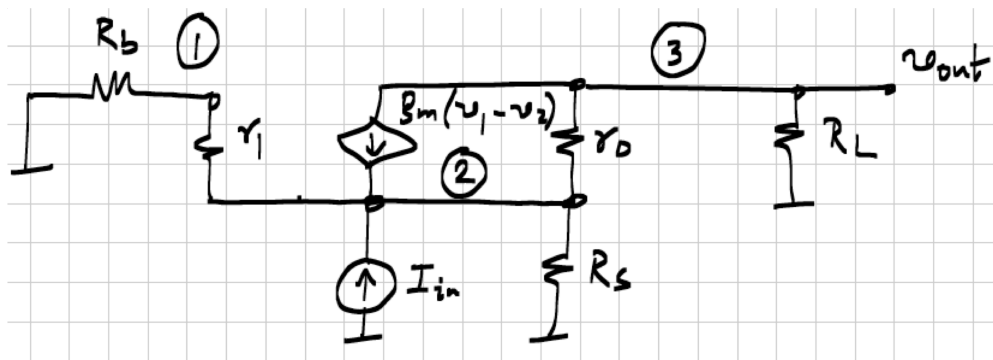


Figure 2: Network for problem 2.

Write the MNA equations (in matrix form) for the network of Fig. 2. The nodes are numbered. Use G_s to denote $1/R_s$ etc. to make your matrices look less messy.

Problem 3

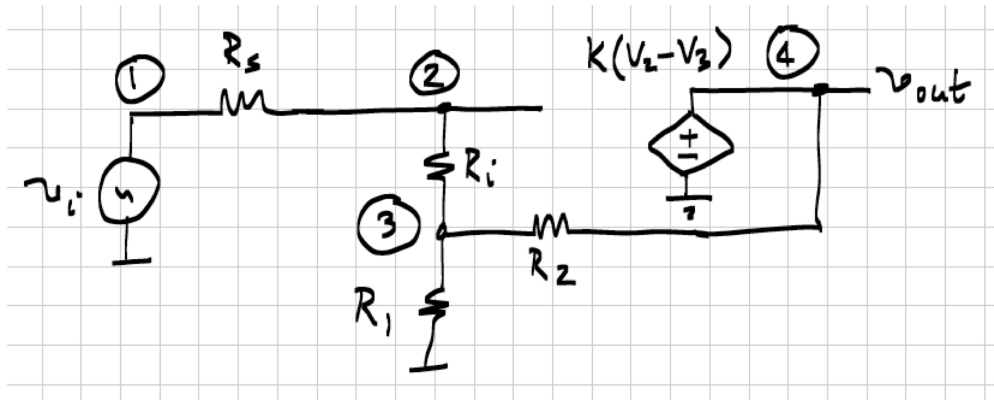


Figure 3: Network for problem 3.

Write the MNA equations (in matrix form) for the network of Fig. 3. The nodes are numbered. Use G_s to denote $1/R_s$ etc. to make your matrices look less messy.

Problem 4

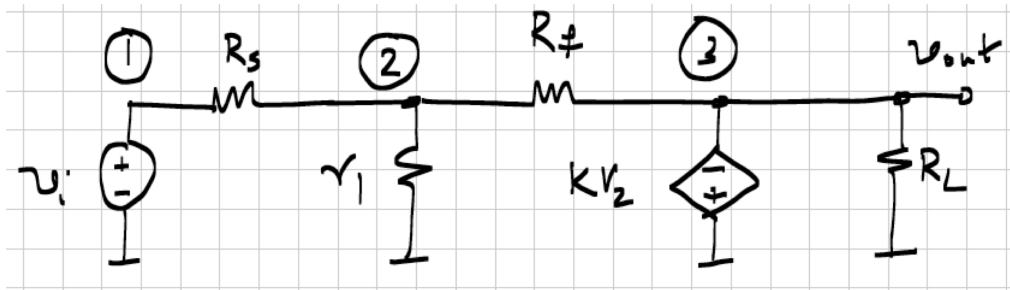


Figure 4: Network for problem 4.

Write the MNA equations (in matrix form) for the network of Fig. 1. The nodes are numbered. Use G_s to denote $1/R_s$ etc. to make your matrices look less messy.